



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,297	02/11/2004	Tamar Eilam	YOR920040003US1	3536
54856	7590	04/15/2008		
LOUIS PAUL HERZBERG				
3 CLOVERDALE LANE				
MONSEY, NY 10952				
EXAMINER				
KRISHNAN, VIVEK V				
ART UNIT		PAPER NUMBER		
2145				
MAIL DATE		DELIVERY MODE		
04/15/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/776,297

Applicant(s)

EILAM ET AL.

Examiner

VIVEK KRISHNAN

Art Unit

2145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This action is responsive to the Amendment/Arguments filed on January 14, 2008. Claims 1-25 are pending.

Response to Arguments

1. Applicant's arguments with respect to Claim Objections under 37 CFR 1.75(c) have been fully considered and are persuasive. The objections to Claims 5, 9, 17, and 23 have been withdrawn.
2. Applicant's arguments with respect to Claim Objections due to minor informalities have been fully considered and are persuasive. The objections to Claims 6, 7, 8, 12, 17, 18, 20, and 25 have been withdrawn.
3. Applicant's arguments with respect to Claim Rejections under 35 U.S.C. 112, second paragraph, have been fully considered and are persuasive. The rejections of Claims 2, 3, and 21 have been withdrawn.
4. Applicant's arguments with respect to Claim Rejections under 35 U.S.C. 102 have been fully considered but they are not persuasive.
 - a. "Thus, Osborn is directed to a hardware resource identifier (19) recognizes hardware resource dependencies in a multi-channel communications system. Osborn is concerned with assigning labels to system hardware resources to identify relationships, between the

system hardware resources and external hardware, to discern redundant resources within respective ones of the hardware resource groups, and to characterize dedicated coupling between individual ones of the system hardware resources. This is not related to the present invention as claimed in Claims 1-6, 9-14, 19, and 21-25."

The Applicant's citation of Osborn's abstract without any arguments regarding the claimed invention is insufficient to show how the claims patentably distinguish from the cited prior art. Furthermore, Osborn's disclosure has multiple embodiments in addition to those shown in the abstract that, as shown below, disclose the limitations of Claims 1-6, 9-14, 19, and 21-25.

b. "Osborn is apparently not concerned with provisioning and managing computing services in a computing utility system by generating a Concrete Model that describes a resource structure that refines the input and is implementable over the infrastructure."

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Furthermore, as rejected below, Osborn discloses generating an application abstract resource description describing a resource structure that is derived from the object specification mentioned above and is mapped to resources in the system.

c. "Osborn is also not concerned with generating and executing provisioning actions to create an identical resource structure on the infrastructure."

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Furthermore, as rejected below, Osborn discloses obtaining an abstract resource description describing virtual hardware resource objects and using the abstract resource description to create a matching resource structure to satisfy the requirements of the service environment.

d. "But, these 'object specification, or application specification, with virtual application objects of an application which describe requirements associated with the application,' apparently have no relation to claim 1 elements. Some words and phrases may be similar to words and phrases in claim 1, but are not related to the steps of claim 1. A review of Osborn fails to show Osborn teaching alleged in the office communication. For example, the cited Osborn portion column 3 lines 17-44 reads:"

The object specification, or application specification, anticipates the Service Environment Model as claimed. Furthermore, Applicant cited a different portion of Osborn than was cited in the rejection.

c. "Applicants respectfully states that a review of the above fails to indicate concern with, anticipation or teaching of:

any model;

any Concrete Model;

any computing utility;

any computing utility infrastructure;

any service;

any service requirements;

any desire of satisfying a set of service requirements;

any Service Environment Model;

any service environment;

any step of generating to obtain a Service Environment Model of a service environment;

any description of a new desired state of any service environment;

any Infrastructure Model;

any Infrastructure Model describing resources and an organization of the resources;

any computing utility infrastructure;

any knowledge subsystem;

any Infrastructure Model encapsulated in a knowledge subsystem;

any step of generating a Concrete Model;

any Concrete Model that describes a structure of resources implementable over a computing utility infrastructure, and satisfying a set of service requirements, said step of generating comprising the steps of: "

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Simply citing portions from the references does not constitute an adequate argument.

Furthermore, as rejected below, Osborn discloses obtaining an object specification, or application specification, which anticipates the Service Environment Model as claimed, obtaining a hardware abstract resource description, or hardware specification, describing resources and an organization of the resources which anticipates the Infrastructure Model as claimed, and generating an application abstract resource description describing a resource structure which anticipates generating a Concrete Model as claimed.

f. "Applicants respectfully states that a review of the above fails to show any Osborn concern with, anticipation or teaching of:

forming any Concrete Model;

any Concrete Model describing a resource structure;

any Concrete Model that refines any Service Environment Model;

any Concrete Model that is mappable;

any Concrete Model that is mappable to any knowledge subsystem; or

any step of forming a Concrete Model describing a resource structure such that the

Concrete Model refines the Service Environment Model and is mappable to said knowledge subsystem. "

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Simply citing portions from the references does not constitute an adequate argument.

Furthermore, as rejected below, Osborn discloses generating an application abstract resource description describing a resource structure that is derived from the object specification and is mappable to resources in the system. This anticipates the Concrete Model as claimed.

g. "This doesn't teach claim 2 elements. Thus clam 2 is allowable for itself and because it depends on an allowable claim."

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Simply citing portions from the references does not constitute an adequate argument.

Furthermore, as rejected below, Osborn discloses the object specification, or application specification, includes virtual application objects that describe requirements on a new desired state of the service environment of the application.

In addition, in view of the aforementioned argument that Osborn discloses each and every limitation of Claim 1, Applicant's argument that Claim 2 depends on an allowable claim is moot.

h. "In response, the applicants respectfully states that this doesn't teach claim 3 elements. Thus claim 3 is allowable for itself and because it depends on an allowable claim. "

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Simply citing portions from the references does not constitute an adequate argument.

Furthermore, as rejected below, Osborn discloses the object specification, or application specification, that does not depend on the computing utility infrastructure.

In addition, in view of the aforementioned argument that Osborn discloses each and every limitation of Claim 1, Applicant's argument that Claim 3 depends on an allowable claim is moot.

5. Applicant's arguments with respect to Claim Rejections under 35 U.S.C. 103 have been fully considered but they are not persuasive.

i. "So, there is no reason to make this combination except in an attempt to find a combination that allegedly has the elements of these claims to make the claims obvious. This is hindsight which is not allowed. But, even the combination does not teach the combined elements. "

Applicant fails to make any argument to justify this conclusion. It is insufficient to merely insert a section of the cited reference.

Furthermore, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

j. "In response, the applicants respectfully states that the various combinations of art fail to make any of the claims obvious, since they all are combined with Osborn which fails to teach even the independent claims. "

In view of the aforementioned argument that Osborn discloses each and every limitation of Claims 1 and 21, Applicant's argument is moot.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-6, 9-14, 19, and 21-25 are rejected under 35 U.S.C. 102(c) as being anticipated by U.S. Patent No. 7,050,807 filed on June 12, 2000 by Osborn (denoted herein as “Osborn”).

8. As for claims 1 and 21, Osborn discloses a method comprising (an apparatus comprising means for) generating a Concrete Model, said Concrete Model describing a structure of resources implementable over a computing utility infrastructure, and satisfying a set of service requirements, said step of generating comprising the steps of:

(means for) obtaining a Service Environment Model of a service environment, said Service Environment Model describing a set of requirements on a new desired state of said service environment (Osborn discloses obtaining an object specification, or application specification, with virtual application objects of an application which describe requirements associated with the application, see column 3 lines 44-59, column 4 lines 15-23, and Figure 2 reference number 68);
(means for) getting an Infrastructure Model describing both resources and an organization of the resources in the computing utility infrastructure, said Infrastructure Model is encapsulated in a knowledge subsystem (Osborn discloses obtaining a hardware abstract resource description, or

Art Unit: 2145

hardware specification, in a system describing both resources and an organization of the resources, see column 3 lines 17-44 and Figure 8); and

(means for) forming the Concrete Model describing a resource structure such that said Concrete Model refines the Service Environment Model and is mappable to said knowledge subsystem (Osborn discloses generating an application abstract resource description describing a resource structure, see Figure 9, that is derived from the object specification mentioned above and is mapped to resources in the system, see column 3 lines 60-67 and column 4 lines 1-14).

9. As for claim 2, Osborn discloses each and every limitation of claim 1. Osborn further discloses wherein the step of obtaining a Service Environment Model of the service environment includes receiving a description of a set of requirements on a new desired state of said service environment (Osborn discloses the object specification, or application specification, includes virtual application objects that describe requirements on a new desired state of the service environment of the application, see column 3 lines 44-59, column 4 lines 15-23, and Figure 2 reference number 68).

10. As for claim 3, Osborn discloses each and every limitation of claim 1. Osborn further discloses wherein said Service Environment Model description is independent of the computing utility infrastructure (Osborn discloses the object specification, or application specification, that does not depend on to the computing utility infrastructure, see column 3 lines 44-59, column 4 lines 15-23, and Figure 2 reference number 68).

11. As for claim 4, Osborn discloses each and every limitation of claim 1. Osborn further discloses wherein said service environment is an entity taken from a group of entities consisting of:

a Web site,

an on-line gaming service,

a scientific computation service,

an e-business service,

a computing service (Osborn discloses a service environment for an application, see column 3 lines 60-67 and column 4 lines 1-14),

and any combination of these.

12. As for claim 5, Osborn discloses each and every limitation of claim 1. An article of manufacture comprising a computer usable medium having computer readable program code means embodied therein for causing generation of a Concrete Model, the computer readable program code means in said article of manufacture comprising computer readable program code means for causing a computer to effect the steps of claim 1 (Osborn discloses the system of Figures 1 and 2 to effect the steps of claim 1, see Figures 1 and 2).

13. As for claim 6, Osborn discloses each and every limitation of claim 1. Osborn further discloses wherein the step of getting an Infrastructure Model includes an action taken from a group of actions consisting of:

querying at least one knowledge subsystem entity (Osborn discloses obtaining the hardware abstract resource description by obtaining information from a hardware resource manager, see column 3 lines 28-43);

querying Resource Managers (Osborn discloses obtaining the hardware abstract resource description by obtaining information from a hardware resource manager, see column 3 lines 28-43),

querying Resource Instance Services,

querying a best practices catalog;

obtaining knowledge of available resource types (Osborn discloses obtaining the hardware abstract resource description by obtaining information on resource group types, see column 5 lines 52-56 and Figure 8);

obtaining knowledge of resources constraints (Osborn discloses obtaining the hardware abstract resource description by obtaining information on resource group designations and other constraints inherently associated with resource attributes, see column 6 lines 3-20 and Figure 8); obtaining knowledge of resource capabilities (Osborn discloses obtaining the hardware abstract resource description by obtaining information on resource attributes, see column 6 lines 45-65 and Figure 8);

obtaining knowledge of infrastructure constraints (Osborn discloses obtaining the hardware abstract resource description by obtaining information on resource group designations and other constraints inherently associated with resource attributes, see column 6 lines 3-20 and Figure 8);

obtaining knowledge of infrastructure capabilities (Osborn discloses obtaining the hardware abstract resource description by obtaining information on resource attributes, see column 6 lines 45-65 and Figure 8);

obtaining knowledge of infrastructure best practices patterns;
and any combination of these actions.

14. As for claim 9, Osborn discloses each and every limitation of claim 1. Osborn further discloses a program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for generating a Concrete Model, said method steps comprising the steps of claim 1 (Osborn discloses the system of Figures 1 and 2 that comprise the steps of claim 1, see Figures 1 and 2).

15. As for claim 10, Osborn discloses each and every limitation of claim 1. Osborn further discloses further comprising using said generating said Concrete Model to enforce a policy based

service provider's best practices in implementation of Service Environments in the computing utility infrastructure (Osborn discloses generating the Concrete Model to enforce the requirements needed to run the application, see column 3 lines 1-8 and column 4 lines 15-23).

16. As for claim 11, Osborn discloses each and every limitation of claim 10. Osborn further discloses wherein the best practices are encoded as patterns in a best practices catalog and used in the step of forming said Concrete Model (Osborn discloses the requirements are derived from an application object library column 3 lines 9-12).

17. As for claims 12 and 22, Osborn discloses each and every limitation of claims 1 and 21. Osborn further discloses (means for) employing said Concrete Model to generate provisioning actions, said provisioning actions, when executed, create a resource structure that matches the description in the Concrete Model, said resource structure satisfies said set of requirements on new desired state of said service environment (Osborn discloses obtaining an abstract resource description describing virtual hardware resource objects and using the abstract resource description to create a matching resource structure to satisfy the requirements of the service environment, see column 3 lines 60-67).

18. As for claim 13, Osborn discloses each and every limitation of claim 12. Osborn further discloses employing said provisioning to enforce a policy based service provider's best practices in implementation of service environments in the computing utility infrastructure (Osborn discloses employing provisioning to enforce the requirements needed to run the application, see column 3 lines 1-8, 60-67 and column 4 lines 15-23).

19. As for claim 14, Osborn discloses each and every limitation of claim 13. Osborn further discloses wherein the best practices are encoded as patterns in a best practices catalog and used in the step of forming the Concrete Model (Osborn discloses the requirements are derived from an application object library column 3 lines 9-12).

20. As for claims 19 and 24, Osborn discloses each and every limitation of claims 1 and 21. Osborn further discloses (means for) employing said Concrete Model to generate a Resource Manager for a composite resource (Osborn discloses that a hardware resource manager employs the application hardware resource specification and a hardware resource diagram, which represents a composite resource, see column 6 lines 3-20 and Figure 8, to allocate the composite resource and thereby create a resource manager for the composite resource, see column 7 lines 1-25).

21. As for claim 23, Osborn discloses each and every limitation of claim 21. Osborn further discloses a computer program product comprising a computer usable medium having computer readable program code means embodied therein for causing generation a Concrete Model, the computer readable program code means in said computer program product comprising readable program code means for causing a computer to effect the functions of claim 21 (Osborn discloses the system of Figures 1 and 2 to effect the functions of claim 21, see Figures 1 and 2).

22. As for claim 25, Osborn discloses each and every limitation of claim 1. Osborn further discloses where the step of generating a Concrete Model is performed by a user taken from a group of user's consisting of:

Art Unit: 2145

a service provider,

a customer of a service provider,

a company owning an IT infrastructure (Osborn discloses an application developer, see column 3 lines 1-15 and column 8 lines 12-23), and

a utility provider (Osborn discloses an application developer, see column 3 lines 1-15 and column 8 lines 12-23).

Claim Rejections - 35 USC § 103

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osborn, as applied to claim 1 above, and in further view of U.S. Patent Application Publication No. US 2003/0208473 A1 filed on January 28, 2000 by Lennon (denoted herein as “Lennon”).

25. As for claim 7, Osborn discloses each and every limitation of claim 1. Osborn does not explicitly disclose, but Lennon discloses wherein the step of forming a Concrete Model includes: at least one refinement step comprised of selecting a node and replacing said node with a sub graph structure to obtain an intermediary model which is an input to a next refinement step (Lennon discloses selecting the description object in a resource description, see DDF on page 9

paragraphs 115 and 116, and replacing it with a sub tree structure, see Figure 5, to produce a description object model, see page 11 paragraphs 154-156 and Figures 2A and 2B); repeating the step of selecting and replacing until a resulting intermediary model is mappable to said knowledge subsystem (Lennon discloses the description object model, or DesOM, represents resources and resource relationships mappable to the system, see page 11 paragraphs 154-156 and Figures 2A and 2B).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Osborn's disclosure of forming a Concrete Model and of a description of resources (Service Environment Model) to include refining the description of resources to produce a Concrete Model in order to provide a consistent method of describing resources and thereby utilizing resource descriptions, see page 1 paragraph 6 of Lennon.

26. As for claim 8, Osborn and Lennon in combination disclose each and every limitation of claim 7. Lennon further discloses wherein said step of replacing comprises a limitation taken from a group of limitations consisting of:

querying a best practices catalog;

generating sub graph patterns dynamically;

employing graph matching techniques to obtain said sub-graph structure (Lennon discloses matching the sub tree structure to the description object, see page 11 paragraph 155 and Figure 5);

employing graph merging techniques to obtain said sub-graph structure (Lennon discloses merging the sub tree structure to the description object, see page 11 paragraph 155 and Figure 5); any combination of these limitations.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Osborn's disclosure of forming a Concrete Model and of a description of resources (Service Environment Model) to include refining the description of resources to produce a Concrete Model in order to provide a consistent method of describing resources and thereby utilizing resource descriptions, see page 1 paragraph 6 of Lennon.

27. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osborn, as applied to claim 12 above, and in further view of U.S. Patent No. 6,332,023 B1 issued on December 18, 2001 to Porter et al. (denoted herein as "Porter").

28. As for claim 15, Osborn discloses each and every limitation of claim 12. In addition, Osborn and Porter in combination disclose wherein step of provisioning includes a task taken from a group of tasks consisting of:
creating a new service environment (Osborn discloses allocating resources to an application to create a service environment, see column 3 lines 60-67),
changing the combination of resources allocated to a service environment (Osborn discloses allocating resources to an application to create a service environment, see column 3 lines 60-67. In addition, Porter discloses de-allocating resources allocated to a service environment, see column 3 lines 40-50),
changing the configuration of resources allocated to a service environment (Porter discloses changing the configuring of a resource that has been allocated to a service environment, see column 3 lines 30-40), or
destroying a service environment , or

any combination of the above.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Osborn's disclosure of provisioning to include the ability to change the configuration of resources in order to provide for a more flexible allocation of resources, see column 2 lines 35-54 of Porter.

29. As for claim 16, Osborn and Porter in combination disclose each and every limitation of claim 15. Porter further discloses wherein changing the configuration of resources allocated to a service environment include:

changing the local state of a resource (Porter discloses updating static and dynamic resource attributes, see column 1 lines 66-67, column 3 lines 1-20), or

changing the way the resource is configured to work with other resources.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Osborn's disclosure of provisioning to include the ability to change the configuration of resources in order to provide for a more flexible allocation of resources, see column 2 lines 35-54 of Porter.

30. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osborn, as applied to claim 1 above, and in further view of U.S. Patent Application Publication No. US 2004/0128397 A1 filed on September 10, 2003 by Glasmann et al. (denoted herein as "Glasmann").

31. As for claim 17, Osborn discloses each and every limitation of claim 1. Osborn does not explicitly disclose, but Glasmann discloses regenerate provisioning instructions whenever at least one of the following occurs:

infrastructure characteristics change (Glasmann discloses allocating resources when there is a change in the topology, see page 1 paragraph 5, 8, and 9), and

requirements of a service change.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Osborn's disclosure of provisioning resources to include providing resources when infrastructure characteristics change in order to provide for adaptive resource checking and reacting to topology changes (see page 1 paragraphs 7 and 10 of Glasmann).

32. As for claim 18, Osborn and Glasmann in combination disclose each and every limitation of claim 17. Glasmann further discloses wherein the infrastructure characteristics include a characteristic taken from a group of characteristics consisting of:

types of resources in the infrastructure,

capabilities of said resources (Glasmann discloses topology changes include changes in the capabilities of a resource, see page 1 paragraphs 4 and 5),

configuration of said resources (Glasmann discloses topology changes include changes in the configuration of a resource, see page 1 paragraphs 4 and 5),

constraints on configuration of said resources,

best practices patterns as defined in the best practices catalog,

and any combination of the above.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Osborn's disclosure of provisioning resources to include providing resources when infrastructure characteristics change in order to provide for adaptive resource checking and reacting to topology changes (see page 1 paragraphs 7 and 10 of Glasmann).

33. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Osborn, as applied to claim 19 above, and in further view of U.S. Patent No. 6,901,446 B2 filed on February 28, 2001 by Chellis et al. (denoted herein as "Chellis").

34. As for claim 20, Osborn discloses each and every limitation of claim 19. Osborn does not explicitly disclose, but Chellis discloses wherein said Resource Manager provides a set of resource manager methods taken from a group of resource manager methods consisting of: creating composite resources based on a Concrete Model (As mentioned above, Osborn does disclose a resource manager for a composite resource. However, Osborn does not explicitly disclose, but Chellis discloses a resource manager capable of creating a composite resource, or set of interdependent resources, based on defined resource requirements for a service, see column 3 lines 36-59), changing composite resources based on a Concrete Model (As mentioned above, Osborn does disclose a resource manager for a composite resource. However, Osborn does not explicitly disclose, but Chellis discloses a resource manager capable of changing a composite resource, or set of interdependent resources, based on defined resource requirements for a service, see column 3 lines 36-67 column 4 lines 1-27 and column 9 lines 55-67), destroying composite resources based on a Concrete Model, and

any combination of these methods.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Osborn's disclosure of a resource manager the ability to create and change composite resources in order to provide increased functionality to the resource manager and, in addition, to provide for more robust allocation of composite resources (see column 2 lines 44-67 and column 3 lines 1-6).

Conclusion

35. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VIVEK KRISHNAN whose telephone number is (571) 270-

5009. The examiner can normally be reached on Monday through Friday from 9:00 AM to 5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on (571) 272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

VK

/Jason D Cardone/
Supervisory Patent Examiner, Art Unit 2145